

1
Superfund Records Center
SITE: South Weymouth NAS
BREAK: 5.4
OTHER: 000201550

OPERABLE UNITS 2 and 9
RUBBLE DISPOSAL AREA
NAVAL AIR STATION
SOUTH WEYMOUTH, MASSACHUSETTS

PUBLIC HEARING

Former Bowling Alley
Naval Air Station
South Weymouth, Massachusetts
Conference Center, Building 122
Shea Memorial Drive
South Weymouth, Massachusetts
Thursday, February 27, 2003
8:35 p.m. to 9:00 p.m.

BEFORE: MARK KRIVANSKY, NAVY PROJECT MANAGER.

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Hearings ♦ Conferences ♦ Legal Proceedings

1 P R O C E E D I N G S

2

3 MR. KRIVANSKY: Good evening. We're

4 here tonight to allow the community the opportunity

5 to go on the official record with any comments or

6 questions they may have relative to the Rubble

7 Disposal Area Proposed Plan and Preferred Remedy the

8 Navy has prepared and made part of the Proposed Plan.

9 I would ask everybody, whoever would

10 like to, to please step up between the tables, to the

11 front table. Please state your name clearly. And if

12 you have a name like "Krivansky," spell it. It would

13 also help our stenographer to keep track of who you

14 are.

15 So if you can, I'd much appreciate if

16 you would step up there, share with us your comments.

17 But once you've completed, just please have your

18 seat, and I'll allow the next person the opportunity

19 to speak.

20 Again, this is for the response to the

21 Summary, which is part of the Record of Decision.

22 The Navy, nor the regulators or anyone else will

23 comment or respond to you at this point. So, but,

1 please, anyone?

2 MR. WILMOT: My name is
3 Dave Wilmot. I live in Abington. I wrote something
4 here. So I'm just going to read it, and I'll
5 apologize for that:

6 "Being a member of a growing group of
7 citizens with serious health concerns in
8 neighborhoods surrounding the former air station, my
9 question will be surmised in a statement concerning
10 my disagreement with the Navy's proposed remediation
11 method.

12 The Rubble Disposal Area site is a
13 dumping ground located beside and in wetlands
14 directly adjacent to Old Swamp River, a waterway that
15 runs north through the base and discharges into
16 Whitman's Pond in Weymouth. Whitman's Pond is the
17 City of Weymouth's secondary drinking water source.

18 The Navy admits that there are four
19 substances of concern that have been found in the
20 Rubble Disposal Area. The concerns in the Rubble
21 Disposal Area were established by concentrations of
22 these substances being heavier in that area than the
23 baseline sample testing that was done. The four

1 substances: PCBs, arsenic, lead and benzo(a)pyrene
2 are four of the eight top substances that the
3 Federal Center of Disease Control Toxic Disease
4 Registry has labeled as "priority toxins."

5 Since this priority toxin listing is
6 made up of 278 substances, I would assume that having
7 four of the top eight at this former dump would make
8 it subject to a full and responsible cleanup. I
9 would have assumed that the presence of these four
10 toxins with a direct migratory path to the drinking
11 water supply would mandate a complete cleanup being
12 done. This is evidently not the case.

13 The Navy's preferred method of cleanup
14 is a 1.6 million dollar option, which would consist
15 of a removal action of some of the contaminated
16 wetland soil and construction of a cap over the
17 remaining contaminants.

18 Unfortunately, I believe, historically,
19 and in this case, that money concerns are prioritized
20 above public health concerns. I don't believe the
21 Navy's preferred cleanup route is just to the people
22 of our towns.

23 Removing all contaminated fill and

1 disposing it off-site is projected to cost 11.3
2 million. This might sound like a lot of money, but
3 compared to the money now spent on exploding chronic
4 disease in our nation, it's chump change; an ounce of
5 prevention.

6 MR. KRIVANSKY: Thank you, Mr. Wilmot.

7 MR. KIMBALL: I'm Charles Kimball of
8 Rockland, former Chairman of the RAB. I'm not happy
9 with this cleanup. And I've told the regulators over
10 the years, time and time again, at all the meetings,
11 "We know where all the sites are on this base. Why
12 don't we clean them all up and remove them?"

13 And here we have tonight, they're
14 supposedly going to clean up the Rubble Disposal, but
15 they're not going to clean it up. All they're
16 cleaning up is a portion of it, and they're going to
17 cover up the rest. I don't think it's right. I
18 think it should all be removed and taken off this
19 base.

20 They said to me, "What do you want to
21 do with it?" I said, "I don't care what you do with
22 it. I want you to remove it and end of studies.
23 Then we won't have to worry about any more

1 contamination of other sites. Once we remove all
2 these contaminants here off the base, that's the end
3 of the story."

4 Today we're hearing, We're going to
5 have another round of studies after they do this
6 supposed cleanup. I'm not happy with this.

7 MR. KRIVANSKY: Thank you.

8 MS. PARSONS: Mary Parsons, Rockland;
9 P-A-R-S-O-N-S.

10 I'm not happy with the Navy's choice
11 either. I would much rather have this completely
12 removed off site, PCBs, as well as the landfill
13 itself and the contents of that landfill.

14 Basically because you're capping a
15 landfill, that's out of line. It still doesn't solve
16 the problem. And you're also on top of Old Swamp
17 River, which leads to Weymouth's water supply.

18 The other issue that's never been
19 mentioned is how you're going to handle the cleanup
20 and the rare species, the state listed rare species,
21 in which I would like you to include Natural Heritage
22 Endangered Species Program in the actual work frame
23 of that cleanup.

1 As well as the fact that on the PCBs
2 being found in the mice, that's a food chain, and
3 there's been no studies done on the reproduction,
4 like, in terms of birds, the eggs of birds that are
5 on the base who are eating, like, worms that may have
6 PCBs. But the hawks, who eat the mice directly,
7 which I know it's going to be a very hard thing to
8 find, but they're here, too. There are some
9 grassland nesting hawks.

10 The other thing I have is, there's a
11 person that couldn't be here tonight and wanted to be
12 here, but has to be at class. And I would like to
13 show these pictures (indicating) to the RAB members,
14 because this is what he photographed in the Rubble
15 Disposal Area, and these are barrels that he had
16 seen. And I think these go back to 1998/1999.

17 (RAB members review photographs.)

18 MS. PARSONS: So you really don't know
19 exactly everything that's in this landfill.

20 Plus, Mr. Loring is absolutely right,
21 because my relatives watched trucks dump in these
22 landfills because they lived in the neighborhood, on
23 the same street as Mr. Loring, and they saw the

1 trucks. And I don't think it was the short four-year
2 span. It was all during the time that they were
3 growing up. It was the '50s, '60s, and right into the
4 '70s. So this landfill was active for a lot longer.

5 And I think you got a letter from the
6 Rockland Board of Selectmen, and they would like it
7 completely removed and taken off site.

8 Sorry, Mark.

9 (Mr. Krivansky reviews photographs.)

10 MR. KRIVANSKY: Thanks, Mary.

11 Anybody else who would like to step up
12 and make a comment?

13 MR. LORING: Robert Loring, Weymouth;
14 L-O-R-I-N-G.

15 On the cost analysis on here, is this
16 the long-term cost for 30 years? Do you know what
17 they used to arrive at these numbers?

18 MR. KRIVANSKY: At this point, I would
19 ask that you just make a comment.

20 MR. LORING: Oh, okay. I would have
21 to concur with most of the other speakers from what
22 I've seen in a short reading of this stuff. If this
23 stuff isn't a problem, then we don't need to fence it

1 in. But if it is a problem, I don't think that you
2 identified the full extent of the problem.

3 And you've made an assumption that
4 there's only 50 cubic yards of PCBs there, but have
5 you substantiated or documented that someplace? You
6 don't show any evidence why that's the only site. We
7 don't know if there are barrels or transformers
8 buried in the rest of the sites that haven't ruptured
9 yet. And you don't know whether they have a gallon
10 or 10 gallons.

11 Certainly, if you took that little
12 50 cubic yard site and picked that off the map and
13 plopped it between any other test wells, it could be
14 the same thing somewhere else, too.

15 And you've allocated, for No. 5 that
16 you're doing the cleanup on, 1.6 million. That's the
17 total. 160,000 for long-term maintenance of the
18 site, which is for future testing and the test wells.
19 And I'm sure it would include mowing the lawns and
20 tree stumps and maintaining the fence. But they did
21 if for 30 years. That's only like \$5,000 a year.
22 And we don't know that that's going to be adequate.
23 And if 10, 15 years down the road, those wells turn

1 up as a future problem, then the budget is gone for
2 the cleanup. So it doesn't seem to me to be
3 cost-effective to cap it, and fence it and test it
4 for 30 years because the true cost of maintaining the
5 site is not known.

6 If you're going to test it, you're
7 testing it because you're anticipating a problem.
8 But there's no money budgeted to solve the problem.
9 And it would certainly cost more money 10 or 15 years
10 down the road to remove the four acres of stuff than
11 it would now. So, I mean, you've got to document
12 that that's the only site, or take the whole thing
13 away. Thank you.

14 MR. KRIVANSKY: Thank you.

15 MR. BAINTE: Good evening.

16 Walter Bainter, B-A-I-N-T-E-R. I'm in South
17 Weymouth.

18 You know, we've had studies going on
19 here for a long time at considerable cost. And I
20 mean, it's to us, the tax payers. And I think that
21 it's time that we start doing something about what's
22 here and getting the problem over with, instead of
23 continuing on and saying, Maybe we'll do this, or

1 Maybe we'll do that, We'll check the mice and do it
2 over and over again. We can go on for years with
3 this testing, and nothing is being done except
4 spending our money.

5 Now, when the Navy was in here, I
6 didn't hear anybody complaining about the pollution,
7 or what they were doing here. The trucks that were
8 going down to the landfill, that, I know a lot of
9 that was from the SeaBees working. They helped build
10 ballfields for the Town of Weymouth and the
11 surrounding towns. That was material that was dumped
12 there. It came from our town. It didn't all come
13 from the base.

14 Nobody complained then. So why are
15 people complaining now about all this hazardous
16 material? If they had a bitch, they should have done
17 it back when the Navy was here. And I think now is
18 the time to just start capping this stuff, or
19 whatever it takes to get it over with. Thank you.

20 MR. KRIVANSKY: Thank you.

21 Would anyone else like to step up and
22 make a comment?

23 MR. CUNNINGHAM: My name is James

1 Cunningham, C-U-N-N-I-N-G-H-A-M. I'm a member of the
2 RAB Board from Weymouth.

3 We have PCBs and other chemicals that
4 are in the wetlands and next to the wetlands, and
5 they go into the Old Swamp River. The Old Swamp
6 River goes directly into the south cove of Whitman's
7 Pond, and there is a pumping station in the south
8 cove of Whitman's Pond that draws water from there
9 into the public water supply of the Town of Weymouth.

10 And as I understand it, somewhere
11 around 20 to 50 percent of the water supply at times
12 during the year, comes from that source. So I'm
13 really concerned about PCBs and other chemicals that
14 are going down Old Swamp River into the water supply
15 for Weymouth.

16 Now, I know PCBs are supposed to be
17 heavy and don't migrate and things, but other things
18 can make them move. They can get on the backs of
19 fish and mice and whatever, rocks and things can move
20 them into that south cove.

21 Now, you've talked about the mice that
22 had a high level of PCB contamination. And, of
23 course, the food chain. But, now, if those mice had

1 burrowed into something toxic and that's what got
2 them the high level, and they became sick, as the man
3 has admitted, you really don't know what's down there
4 because the mice could be burrowing around into areas
5 that weren't accessible to the test borings and the
6 monitoring wells.

7 In other words, people have been
8 dumping stuff there for many years, and the concrete
9 from the buildings, they may have just provided its
10 own cap to this thing and there might be something
11 much more hazardous underneath.

12 So for that reason, I would like to see
13 the area, all the stuff in the area, all the
14 hazardous materials completely removed under the
15 Alternative RDA 6, rather than the RDA 5, which is
16 being proposed this evening.

17 The soil cover which you anticipate to
18 put on there could be eroded at the base of the soil
19 cover by heavy rain coming into the area adjacent to
20 this landfill, especially as it touches the wetlands.

21 Now, I don't know just exactly what was
22 proposed to be put in the wetlands in the place of
23 what they've taken out. But it seems to me, if they

1 don't put anything there, you're just expanding the
2 wetlands back further into the Rubble Disposal Area.
3 And, therefore, you'd be touching the wetlands again
4 with unknown material this time.

5 So what you really would have to do, if
6 you had the alternative that's proposed this evening,
7 you would have to find some sort of physical barrier
8 between the wetlands and the Rubble Disposal Area.
9 That would require something like a concrete wall
10 that separated the river and the wetland area from
11 the Rubble Disposal Area.

12 And, of course, even that wouldn't
13 necessarily solve your problem if the ground water
14 was actually leaching stuff out into the river. The
15 ground water would come along and probably accelerate
16 as it's headed towards the river in a downstream
17 manner, perhaps. I don't know. And wash whatever is
18 in there into the river, even if you had a solid
19 barrier between the two. And so for that reason, I
20 am supporting the Alternative RDA 6.

21 In Weymouth, I'm a member of the
22 Whitman's Pond Association. Our goals of that
23 Association are to clean up the pond in Weymouth and

1 to unify the area around it. But, nevertheless, I'm
2 very interested in protecting the quality of water
3 entering Whitman's Pond and the public water supply
4 of Weymouth.

5 When you think about things leaching
6 into the water supply of Weymouth, you've got to
7 think about this scenario when you're developing the
8 air base: The chemicals go from the Rubble Disposal
9 Area into the water, and then they go to Weymouth's
10 water supply. And since the developers are starting
11 to use waters from Weymouth, then the redeveloped
12 areas on the Weymouth Naval Air Station site will be
13 using water which is contaminated with the pollutants
14 which they themselves are polluting.

15 So if they had an interest, even the
16 people who are here on the base who are going to
17 remain on the base are interested in clean water,
18 they should support the idea of removing everything
19 out of the water supply and potential areas of
20 contamination to the water.

21 A gentleman mentioned that years ago we
22 didn't know what chemicals, you know, we didn't care
23 about what was being dumped and we should have talked

1 about it then when the Navy was dumping. But, you
2 know, years ago, they didn't know that PCBs were a
3 chemical. They didn't know a lot of things were bad.
4 They didn't know asbestos was bad.

5 I used to patch my car with powdered
6 asbestos. You'd just take a bag of it like plaster,
7 dump it in and mix it up in a bowl. Perhaps that's
8 why I have the throat problem I have now. Who knows?
9 Although I hope not.

10 But, anyway, you didn't know what
11 chemicals were hazardous then. And who knows what
12 chemicals may be found to be hazardous in the future
13 which may be residing in this Rubble Disposal Area.
14 So if you want to be sure about this thing, you
15 should remove the whole of all of the hazardous
16 material in the Rubble Disposal Area; which is
17 everything there.

18 Again, the 30-year monitoring period is
19 an unknown cost. The cost of everything is
20 escalating every year. Who knows what it will be?
21 The monitoring costs may eventually exceed the cost
22 of removing the thing right now.

23 So what the answer to the whole thing

1 is, not only with the Rubble Disposal Area, but with
2 other hazardous waste sites on the base is to get rid
3 of it right now, and that's why I support the
4 Alternative RDA 6.

5 MR. KRIVANSKY: Thank you,
6 Mr. Cunningham.

7 MR. MCCORMACK: My name is
8 Don McCormack, M-C-C-O-R-M-A-C-K. I'm a Weymouth
9 resident, and I also support the proposal to remove
10 the entire Rubble Disposal Area.

11 The Navy has proposed to remove
12 approximately 54 cubic yards of PCB contaminated
13 material. It's plausible, but I think 54 cubic yards
14 of contaminated material is minuscule compared to
15 what has been removed from this base since the base
16 closure started.

17 It's called a "base cleanup." I think
18 we should clean up the base, and that doesn't mean
19 capping in place and leaving it for future
20 generations, for the people of Weymouth to deal with.
21 Thank you.

22 MR. KRIVANSKY: Thank you.

23 Would anybody else like to make a

1 comment?

2 MS. PARSONS: Mary Parsons,
3 P-A-R-S-O-N-S, Rockland.

4 The Rockland Board of Health was here,
5 too, earlier. There is -- the other issue here is,
6 we inherit this landfill. And although it sounds
7 very rosy, you know, it's this nice picture of DEP,
8 and we'll monitor this and everything else. We know
9 how -- we know DEP's wrath.

10 We have two landfills in the Town of
11 Rockland. And let me tell you, we have to monitor
12 those things on a yearly basis, a six-month basis,
13 take those reading and it really is costly to us.

14 And the South Shore Tri-Town
15 Development Corporation will be out of existence in
16 15 years, and we will be inheriting this landfill.
17 It will be within the Town of Rockland's borders
18 and as someone brought up, in open space, our Open
19 Space Committee member mentioned that.

20 So, therefore, it will end up in the
21 public realm of the Town of Rockland, and will be
22 another landfill that the DEP will come after us on,
23 and make sure that we're testing it every six months

1 and doing those readings, and tell us what monitoring
2 wells and what gas vents to have in it, and so on and
3 so forth.

4 So that's another reason why we would
5 also like this completely removed. And the Rockland
6 Board of Selectmen sent you a letter, I'm sure. I
7 was told that the Rockland Board of Health was
8 sending a letter. RDA 6 is the one that we would
9 like, as well.

10 MR. KRIVANSKY: Thank you.

11 MS. WHITTEMORE: I would like to read
12 my statement. My name is Patty Whittemore.

13 "EPA requests that the following
14 statement be entered into the public record: In our
15 comments on the Proposed Plan for Operable Unit 2,
16 Rubble Disposal Area, at the South Weymouth Naval Air
17 Station National Priorities List Site, which comments
18 we have presented in letters to the Navy dated
19 July 15, 2002; November 26, 2002; January 13, 2003
20 and January 31, 2003, EPA has requested that the
21 Navy: Perform a pre-remedial design investigation at
22 the Rubble Disposal site in order to develop data to
23 support the chosen remedy and optimization of the

1 design."

2 We also requested "to further
3 characterize the disposal material to verify that the
4 design will be adequate to its purpose. Expand and
5 optimize the long-term monitoring network, evaluate
6 potential long-term impacts to the nearby GW-1
7 drinking water resource, assess the potential for
8 compromise of the cover by high surface-water levels
9 and flood waters, and determine whether the site is
10 located within an active flood plain.

11 "As we have explained, EPA does not
12 agree that the Navy has sufficient information to
13 complete a remedial design at this time. The Navy
14 has responded that it will not perform the requested
15 investigation work prior to the design phase because,
16 in its view, such work is not necessary to support
17 the conceptual design of the remedial alternatives
18 evaluated in the Feasibility Study Report. The Navy
19 has not responded that there will be opportunities to
20 gather and interpret additional data about the Rubble
21 Disposal site in the basewide watershed assessment,
22 as well as in conjunction with site long-term
23 monitoring.

1 "EPA disagrees with the Navy about the
2 timing of the requested investigation work. However,
3 we believe the Navy has addressed our primary
4 concern, by acknowledging its responsibility to
5 adequately respond to any new data needs that arise
6 as the remedial design advances in order to ensure a
7 remedy that is protective of human health and the
8 environment. We continue to believe that a
9 pre-design investigation would be the most efficient
10 and focused, as well as cost-effective means of
11 obtaining the data needed to support a consensus for
12 a final design.

13 "Therefore, EPA will agree with the
14 final Proposed Plan with the caveat that we will be
15 unable to concur with a final remedy for the RDA site
16 until these issues, which we have raised repeatedly,
17 are adequately addressed. Thank you.

18 MR. KRIVANSKY: Thank you.

19 Are there any others in the audience
20 that would like to go on the record with a formal
21 comment at this time?

22 (Pause.)

23 If there are not, I would like to thank

1 everybody for their participation, and remind
2 everybody that they do have the opportunity to
3 respond to the Navy in writing between now and March
4 26, 2003 on the Rubble Disposal Area Proposed Plan.

5 (Whereupon the Hearing concluded at
6 nine o'clock p.m.)

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CERTIFICATE

Commonwealth of Massachusetts

Suffolk, ss.

I, Darlene E. Curley-Sullivan, a Notary Public in and for the Commonwealth of Massachusetts, do hereby certify that the foregoing record, pages 1 through 23, inclusive, is a complete, accurate and true transcription of my stenographic notes taken in the aforementioned matter to the best of my skills and ability.

Darlene E. Curley-Sullivan 4/7/03
DARLENE E. CURLEY-SULLIVAN,
Court Reporter, Notary Public

My Notary Public expires August 13, 2004

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**Record of Decision
Naval Air Station South Weymouth
Appendices**

Appendix F: ARAR Tables

**ARARS AND TBCS ASSOCIATED WITH ALTERNATIVE RDA-5: EXCAVATION AND OFFSITE DISPOSAL OF PCB MATERIAL, AND
PERMEABLE SOIL CAP FOR LANDFILL MATERIAL
RDA
NAS SOUTH WEYMOUTH, MASSACHUSETTS**

Media	Requirement	Requirement Synopsis	Action to be Taken to Attain Requirement	Status
Federal – Location-Specific				
Wetlands	US Army Corps of Engineers, New England District (USACE-NAE) Mitigation Guidance	This guidance provides measures depicting <i>Mitigation Special Conditions, Sample Monitoring Report, and Checklist for Review of Mitigation Plan.</i>	If a remedial action involves disruption or potential impacts to the adjacent wetlands, this guidance would be pertinent.	To Be Considered
Wetlands	National Environmental Policy Act (NEPA), Wetlands, Floodplains, Important Farmland, Coastal Zones, Wild and Scenic Rivers, Fish and Wildlife Endangered Species 40 CFR Part 6	These regulations contain the procedures for complying with the executive order on wetland protection (EO 11990). Under this order, federal agencies are required to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance natural and the beneficial values of wetlands. Requires that no remedial alternative adversely affect a wetland if another practicable alternative exists. If no such alternative exists, impacts from implementation must be mitigated.	Appropriate federal agencies would be contacted and allowed to review the proposed work plan for the remedial action prior to implementation of the action. Under this alternative, there is no practicable alternative that would have a less adverse impact on the aquatic ecosystem. Remedial activities would be scheduled and designed to minimize harm to the wetlands to the extent possible and any adverse impacts would be mitigated through wetland restoration.	Applicable
Wetlands	Fish and Wildlife Coordination Act 40 CFR Part 320.3 (16 USC 661 et seq.)	Requires that the U.S. Fish and Wildlife Services and National Marine Fisheries Service be consulted prior to structural modification of any stream or other water body (i.e., wetland). It also requires adequate protection of fish and wildlife resources. Requires consultation with state agencies to develop measures to prevent, mitigate, or compensate for project-related losses to fish and wildlife.	This alternative would include excavation within the wetlands adjacent to the former disposal area, and no practicable alternative exists. Actions taken would minimize adverse impacts to fish and wildlife. Relevant federal and state agencies would be contacted and allowed to review the proposed work plan for the remedial action prior to implementation of the action.	Relevant and Appropriate

**ARARS AND TBCS ASSOCIATED WITH ALTERNATIVE RDA-5: EXCAVATION AND OFFSITE DISPOSAL OF PCB MATERIAL, AND
PERMEABLE SOIL CAP FOR LANDFILL MATERIAL (CONTINUED)**

RDA

NAS SOUTH WEYMOUTH, MASSACHUSETTS

Media	Requirement	Requirement Synopsis	Action to be Taken to Attain Requirement	Status
Floodplains	NEPA, Floodplain Management 40 CFR Part 6, Appendix A	Appendix A sets forth policy for carrying out the executive order on Floodplain Management (EO 11988). EO 11988 requires that a cleanup in a floodplain not be performed unless a determination is made that no practicable alternative exists. If no practicable alternative exists, potential harm must be minimized and action taken to restore and preserve the natural and beneficial values of the floodplain.	This alternative would include the excavation within the wetlands adjacent to the former disposal area, which is also within the 100-year floodplain of Old Swamp River. No practicable alternative to this excavation exists. Appropriate federal agencies would be contacted and allowed to review the proposed work plan for the remedial action prior to implementation of the action. Remedial activities would be scheduled and designed to minimize harm to the floodplains to the extent possible.	Applicable
Water	Clean Water Act (CWA) 404 (b) (1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material	Section 404 of the CWA regulates the discharge of dredged or fill material into U.S. waters, including wetlands. The purpose of section 404 is to ensure that proposed discharges are evaluated with respect to impacts on the aquatic ecosystem. No activity that adversely affects a wetland is permitted if a practicable alternative that has less effect is available. If there is no other practicable alternative, impacts must be mitigated.	Remedial activities would involve dredged or fill material discharge to wetlands. Under this alternative, there is no practicable alternative to this discharge; however any adverse impacts would be mitigated.	Relevant and Appropriate
Water	Rivers and Harbors Act Section 10, 33 U.S.C. 403, 33 CFR Parts 320- 323	Section 10 of the Rivers and Harbors Act is implemented through a federal regulatory program administered by the U.S. Army Corps of Engineers (USACOE). It covers dredging, filling, excavation and placement of structures in all wetlands, tidal waters and navigable freshwaters.	Actions taken would minimize adverse impacts to the nearby Old Swamp River and comply with the environmental standards in 33 CFR Parts 320-323. Relevant federal and state agencies would be contacted and allowed to review the proposed work plan for the remedial action prior to implementation of any action that may impact the river.	Relevant and Appropriate

**ARARS AND TBCS ASSOCIATED WITH ALTERNATIVE RDA-5: EXCAVATION AND OFFSITE DISPOSAL OF PCB MATERIAL, AND
PERMEABLE SOIL CAP FOR LANDFILL MATERIAL (CONTINUED)**

RDA

NAS SOUTH WEYMOUTH, MASSACHUSETTS

Media	Requirement	Requirement Synopsis	Action to be Taken to Attain Requirement	Status
State - Location Specific				
Wetlands	MA Wetland Protection Regulations 310 CMR 10.00	<p>These regulations govern activities in freshwater wetlands, 100-year floodplains, and 100-foot buffer zones beyond such areas. Regulated activities include certain types of construction and excavation activities. Performance standards are provided and include evaluating the acceptability of various activities.</p> <p>The MA Wetland Protection program also is used to coordinate with the <i>Massachusetts Natural Heritage and Endangered Species Program</i> regarding the presence of rare wetlands wildlife, such as the spotted turtle (state-listed species of special concern). If a proposed project is determined to alter a resource area which is part of the habitat of a state-listed species, MAWPA regulations (310 CMR 10.59) state that this project "shall not be permitted to have any short or long term adverse effects on the habitat of the local population of this species."</p>	Because remedial activities may include construction in wetlands, they would be performed in compliance with the performance standards of these requirements. Any disturbance of a wetland would be restored.	Applicable
Endangered Species	MA Endangered Species Act (MESA) 321 CMR 10.00	<p>These regulations prohibit the "taking" of any rare plants or animals listed as Endangered, Threatened, or Special Concern by the MA Division of Fisheries & Wildlife. Northern harrier, which is a threatened species, have been observed in the vicinity of the site. They also protect designated "significant habitats." "Significant habitat" can be designated for Endangered or Threatened species populations after a public hearing process.</p>	Environmental surveys would be performed to identify habitats and evidence of endangered species. Precautions to prevent impacts to identified habitats and species would be imposed during site activities.	Applicable

**ARARS AND TBCS ASSOCIATED WITH ALTERNATIVE RDA-5: EXCAVATION AND OFFSITE DISPOSAL OF PCB MATERIAL, AND
PERMEABLE SOIL CAP FOR LANDFILL MATERIAL (CONTINUED)**

RDA

NAS SOUTH WEYMOUTH, MASSACHUSETTS

Media	Requirement	Requirement Synopsis	Action to be Taken to Attain Requirement	Status
Federal – Action-Specific				
Landfill	Presumptive Remedy for CERCLA Municipal Landfill Sites PB93-963339, September 1993	Guidance for complying with federal and state closure requirements, including cover material options and other site controls.	Because landfill capping would be implemented, this TBC would be achieved.	To Be Considered
Landfill	Application of the CERCLA Municipal Landfill Presumptive Remedy to Military Landfills PB96-963314, December 1996	Guidance for applying the municipal landfill presumptive remedy guidance (PB93-963339) to military bases where domestic, industrial, and other types of wastes may have been disposed of in a designated area or landfill.	Because landfill capping would be implemented, this TBC would be achieved.	To Be Considered
Waste	RCRA Identification and Listing of Hazardous Waste, Toxicity Characteristic 40 CFR Part 261.24	These requirements identify the maximum concentrations of contaminants for which the waste would be a RCRA characteristic waste because of its toxicity. The analytical test set out in Appendix II of 40 CFR Part 61 is referred to as the Toxicity Characteristic Leaching Procedure (TCLP).	Because this alternative involves the offsite disposal of PCB-impacted material and landfill material, it would be analyzed by the TCLP to determine whether they are characteristic hazardous waste under RCRA. Wastes that are determined to exceed TCLP allowable concentrations (and therefore be hazardous), would be disposed offsite in a RCRA Subtitle C or state-equivalent TSDF. Wastes that are determined to be below TCLP allowable concentrations (and therefore nonhazardous), would be disposed offsite in a RCRA Subtitle D or state-equivalent TSDF.	Applicable
Waste	RCRA Standards Applicable to Generators of Hazardous Waste 40 CFR Part 262	Massachusetts has been delegated the authority to administer these RCRA standards through its state hazardous waste management regulations. The relevant and appropriate provisions of 40 CFR Part 262 are incorporated by reference. Refer to 310 CMR 30.000.	Because this alternative involves the offsite disposal of PCB-impacted material and landfill material, it would be handled in compliance with the substantive requirements of these standards.	Applicable

**ARARS AND TBCS ASSOCIATED WITH ALTERNATIVE RDA-5: EXCAVATION AND OFFSITE DISPOSAL OF PCB MATERIAL, AND
PERMEABLE SOIL CAP FOR LANDFILL MATERIAL (CONTINUED)**

RDA

NAS SOUTH WEYMOUTH, MASSACHUSETTS

Media	Requirement	Requirement Synopsis	Action to be Taken to Attain Requirement	Status
Waste	RCRA Use and Management of Containers 40 CFR Part 264 Subpart I	These requirements set standards for the storage of hazardous wastes in containers. Refer to 310 CMR 30.000.	Since some of the excavated material may be stored in drums prior to offsite disposal, the substantive requirements of this regulation would be achieved.	Applicable
Waste	EPA Publication 9345.3 - 03 FS January 1992	OSWER Management of wastes generated during remedial activities must ensure protection of human health and the environment.	Waste Management would be in accordance with this guidance.	To Be Considered
Surface Water	Federal Ambient Water Quality Criteria (AWQC) 33 USC 1314(a); 40 CFR Part 122.44	Federal AWQCs include (1) criteria for protection of human health from toxic properties of contaminants ingested through drinking water and aquatic organisms, and (2) criteria for protection of aquatic life.	Contaminant concentrations in Old Swamp River and the associated wetlands would be measured during monitoring to determine whether water quality is being impacted by site activities, and to ensure that AWQCs are being met.	Relevant and Appropriate
State- Action-Specific				
Landfill	MA Solid Waste Management Landfill Final Cover Systems 310 CMR 19.112	These are requirements for landfill final cover systems, including the performance standards and design criteria for cover system components.	This remedial alternative would meet the design and performance standards and include the cover system components outlined in these requirements.	Applicable
Landfill	MA Solid Waste Management Storm Water Controls 310 CMR 19.115	These are requirements for storm water controls based on performance standards and design criteria.	This remedial alternative would meet the design and performance standards of these requirements.	Applicable
Landfill	MA Solid Waste Management Environmental Monitoring Requirements 310 CMR 19.132	These are regulations for surface water and groundwater monitoring, including frequency, quality, reporting, analytical parameters, and mitigation protocols. Also includes leak detection, and supplemental systems (e.g., gas and leachate control) as necessary.	This alternative includes long-term monitoring. Gas and leachate control are not considered practical since the refuse is located within the saturated zone. This remedial alternative would meet the surface and ground water monitoring requirements of these regulations.	Applicable
Landfill	MA Solid Waste Management Landfill Closure Requirements 310 CMR 19.140	These are regulations related to the closure of landfills.	This remedial alternative would meet the substantive closure requirements of these regulations.	Applicable

**ARARS AND TBCS ASSOCIATED WITH ALTERNATIVE RDA-5: EXCAVATION AND OFFSITE DISPOSAL OF PCB MATERIAL, AND
PERMEABLE SOIL CAP FOR LANDFILL MATERIAL (CONTINUED)**

RDA

NAS SOUTH WEYMOUTH, MASSACHUSETTS

Media	Requirement	Requirement Synopsis	Action to be Taken to Attain Requirement	Status
Landfill	MA Solid Waste Management Landfill Post-Closure Requirements 310 CMR 19.142	These are regulations for site maintenance and monitoring during the post-closure period to ensure the integrity of the closure measure as well as to detect and prevent any adverse affects to human health and the environment.	This remedial alternative would meet the substantive post-closure requirements of these regulations.	Applicable
Surface Water	MA Surface Water Quality Standards 314 CMR 4.00	These regulations limit or prohibit discharges of pollutants to surface waters to ensure that the surface water quality standards of the receiving waters are protected and maintained or attained.	Contaminant concentrations in Old Swamp River and the associated wetlands would be measured during monitoring to determine whether or not water quality is being impacted site activities, and to ensure that state water quality standards are being met.	Relevant and Appropriate
Water	MA Standards for Analytical Data for Remedial Response Action Bureau of Waste Site Cleanup Policy 300-89	This policy describes the minimum standards for analytical data submitted to the MADEP.	Because this remedial action includes a long-term monitoring, the analytical methods provided in this policy would be considered.	To Be Considered
Waste	MA Hazardous Waste Regulations 310 CMR 30.000	These regulations contain requirements for the generation, storage, collection, transport, treatment, disposal, use, reuse and recycling of hazardous waste.	Wastes generated as a part of a remedial action for the RDA that are considered hazardous would be handled in compliance with the substantive requirements of these regulations.	Applicable
Waste	MA Hazardous Waste Management Rules (HWMR) Requirements for Generators 310 CMR 30.300	These regulations contain requirements for generators of hazardous waste. The regulations apply to generators of sampling waste and also apply to the accumulation of waste prior to offsite disposal.	Wastes generated as a part of a remedial action for the RDA that are considered hazardous would be handled in compliance with the substantive requirements of these regulations.	Applicable

**ARARS AND TBCS ASSOCIATED WITH ALTERNATIVE RDA-5: EXCAVATION AND OFFSITE DISPOSAL OF PCB MATERIAL, AND
PERMEABLE SOIL CAP FOR LANDFILL MATERIAL (CONTINUED)**

RDA

NAS SOUTH WEYMOUTH, MASSACHUSETTS

Media	Requirement	Requirement Synopsis	Action to be Taken to Attain Requirement	Status
Air	MA Air Pollution Control Regulations 310 CMR 7.09	These regulations establish the standards and requirements for air pollution control in the commonwealth. Section 7.09 contains requirements relevant to dust, odor, construction and demolition.	Any emissions of fugitive dust will be managed through engineering and other controls during remedial activities.	Applicable
Water	MA HWMR Groundwater Protection 310 CMR 30.660 – 30.679	These regulations require groundwater monitoring at specified regulated units that treat, store, or dispose of hazardous waste. Maximum concentration limits for the hazardous constituents are specified in 310 CMR 30.668.	The remedial action for the site would include groundwater monitoring. If wastes generated as part of a remedial action for the RDA are determined to be hazardous, the monitoring program would be developed to comply with the substantive sections of these requirements.	Applicable

**Record of Decision
Naval Air Station, South Weymouth, MA
Appendices**

Appendix G: Landfill Cover Evaluation Matrix

Record of Decision
Naval Air Station, South Weymouth, MA
Appendices

**Landfill Cover Evaluation Matrix Relative to Groundwater Considerations
Supplement to Rubble Disposal Area Feasibility Study
NAS South Weymouth, MA**

Groundwater Chemical of Potential Concern	Potential Transport Mechanism Relative to Chemical in Groundwater	Cover Type Preference and Rationale
Arsenic	Under oxygen-rich (aerated) conditions, the oxidation state of arsenic increases, and the resulting chemical complex becomes less soluble, more adsorptive, and less mobile. Further, iron oxyhydroxides, present in the aquifer beneath the site, are sensitive to redox conditions and tend to control the sorption/desorption of arsenic.	Permeable. A permeable cover over the disposal area (1×10^{-5} soil) is optimal to allow rain (and oxygen) to infiltrate and reduce the potential for arsenic to be released into groundwater. In addition, a permeable cover (optimal for aerobic groundwater conditions) would promote the stability of the iron hydroxides and thus reduce the mobility of arsenic in groundwater. A semi-permeable cover over the disposal area (1×10^{-7} clay) would allow a lesser level of aeration, and an impermeable cover (1×10^{-9} GSC or 1×10^{-13} FML) could impede continued aeration.
Manganese	Under oxygen-rich conditions, oxidation state of manganese increases, and the resulting chemical complex becomes less soluble, less mobile, and more readily precipitated. Further, iron oxyhydroxides, present in the aquifer beneath the site, are sensitive to redox conditions and tend to control the sorption/desorption of manganese.	Permeable. A permeable cover over the disposal area (1×10^{-5} soil) is optimal to allow rain (and oxygen) to infiltrate and reduce the potential for manganese to be released into groundwater. In addition, a permeable cover (optimal for aerobic groundwater conditions) would promote the stability of the iron hydroxides and thus reduce the mobility of manganese in groundwater. A semi-permeable cover over the disposal area (1×10^{-7} clay) would allow a lesser level of aeration, and an impermeable cover (1×10^{-9} GSC or 1×10^{-13} FML) could impede continued aeration.
Benzo(a)pyrene	Benzo(a)pyrene will strongly adsorb to organic matter. That sorption should not vary with the redox condition of the groundwater, unless a linked-effect increases aqueous total organic carbon content, which could theoretically increase solubility. Biodegradation is the major loss mechanism for benzo(a)pyrene from soil, as opposed to dissolution. Aerobic conditions are more conducive to biodegradation occurring than anaerobic conditions. However, biodegradation rates are expected to be relatively slow in either case, and are therefore not significant in reducing concentrations of benzo(a)pyrene at the site.	Either cover material is acceptable. A permeable cover over the disposal area (1×10^{-5} soil) would have a minor (but not significant) advantage in increasing the rate of natural biodegradation. If the permeability is lessened by either a semi-permeable cover (1×10^{-7} clay) or impermeable cover (1×10^{-9} GSC or 1×10^{-13} FML), the naturally slow biodegradation of benzo(a)pyrene could be even slower.

Notes:

GSC – geosynthetic clay

FML – flexible membrane liner

redox – oxygen/reduction potential

1×10 – permeability measurement in cm/sec